ABSTRACT

HPLC analysis of drugs IV.

Diploma Thesis

Lucia Štichová

Charles University in Prague, Faculty of Pharmacy in Hradec Králové,

Department of Pharmaceutical Chemistry and Drug Control,

Heyrovského 1203, Hradec Králové

In this thesis, conditions were optimized for high-performance liquid chromatography for quantitative evaluation of ibuprofen. It was established solid phase microextraction conditions for which ibuprofen was extracted from whole blood. The fiber was coated with polydimethylsiloxane - divinylbenzene with a thickness of 60 μm. The fiber was immersed in the sample. The blood sample was adjusted to pH 2.6. Sorption time was set at 30 minutes and the methanol desorption time was 15 minutes. The mobile phase consisted of methanol with water in the ratio 8:2 and pH was adjusted to a value of 3. The flow rate was 1 ml / min and detection was carried out at a wavelength of 222 nm. For quantitative evaluation the external standard was used. The detection limit was 0.005 μg / ml and the quantification limit was 0.017 μg / ml.